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PUNCTURE IN CHRONIC HYDROCEPHALUS.

I.—*Case of Chronic Hydrocephalus treated by Puncture.* By R. C. RUSSEL, Esq. of Aberdeen.

CHRISTIAN LITTLEJOHN, whose age is eight months, was affected with chronic hydrocephalus. Her mother observed a few days after birth a greater separation of the bones of the head than natural, after which its size began to increase very rapidly. Eleven weeks after birth, I was requested to see her along with my friend Mr. Moir, Lecturer on Anatomy in this place. By that time the head had acquired an enormous size; it measured in circumference twenty-three inches, and from the meatus of one side to that of the other, across the vertex, fifteen and a half inches. There was a constant rolling of the eyes, and squinting, but there was no unusual dilatation of the pupil, which contracted readily on the application of light. The bowels were irregular, and she was affected with slight startings during sleep. Various methods of treatment had been adopted, viz. compression, blisters, mercury, diuretics, &c.; but in spite of these measures the head continued to increase. As the general state of her health appeared good, I resolved upon trying the operation which has been recommended, of gradually discharging the water by puncture. The operation was accordingly performed on the 25th August, six days after my first visit. The instrument which I employed was a trocar such as is used in hydrocele. I introduced it about half an inch in depth on the right side of the anterior fontanel, and three ounces of serous fluid were discharged through the canula. A piece of adhesive plaster was placed over the puncture, and a roller applied around the head. She slept well that night, but next day she was slightly feverish, and continued so for two days afterwards, when she appeared as well as before the operation.

On the 4th day of September, the puncture was repeated in the same manner on the opposite side, and five and a half ounces of turbid serum were evacuated, containing several flakes of lymph. No unfavorable symptom followed. On the 15th September, the size of the head appeared much lessened, and was found to have diminished two and a half inches in circumference, and two and a quarter across the vertex. Ossification had made considerable progress. A large opening in the frontal bone, which extended from the bregma to the nose, was completely

filled up, while those in other parts were much diminished. In again using the trocar, only an ounce of fluid was discharged. On the 5th of October, I inserted the trocar near the part I first punctured, and introduced it as far as the meninges, but only half an ounce of fluid passed through the canula; I therefore re-introduced it, and entered it obliquely, about an inch and a half in the direction of the ventricle, and upon withdrawing it, nine ounces of serum were discharged in a continued stream. The wound was closed, and a roller applied tightly around the head. Immediately after the water was discharged, the pulse became feeble, and she was faint and weak; but during the evening she fell asleep, and awoke an hour afterwards apparently much refreshed. To my great surprise, not one unfavorable symptom followed. The pulse indeed became more regular than it had hitherto been, the startings during sleep were not so frequent, and she appeared in other respects better, with the exception of her bowels, which continued to discharge stools of a dark green color. She continued to improve for nearly three weeks afterwards, when her former symptoms gradually returned, and an obscure fluctuation could be perceived by pressing with the fingers above the anterior bregma. Small doses of calomel were administered till the mouth was affected, which shortly produced an absorption of the fluid, and a removal of all the hydrocephalic symptoms. Since then, she has had no relapse, and has enjoyed almost uninterrupted good health. She is a stout and lusty child, and her size uncommonly large for her age. The bones of her head are now complete, excepting the anterior opening, which is closing. The size of the head is less by four inches in circumference, and two and a half across the vertex, than it was previously to the first operation. With the exception of Dr. Conquest's two cases, I am not acquainted with another in which the ventricle has been punctured for the relief of water in the head. In the cases of Rossi, and Dr. Vose, the water between the membranes only was evacuated. An opinion is entertained by several, that this operation is not only a very dangerous, but an extremely doubtful one. I trust, however, that the result of these cases will prove that such fears are in a great measure groundless, and that, under favorable circumstances, the chance of cure is such as to justify its performance.—*Edinburgh Medical and Surgical Journal*, July, 1832.

II.—*Case of Chronic Hydrocephalus cured by Puncture.* By Professor GRAEFE, of Germany.

A boy, whose head from birth had been preternaturally large, but who was otherwise healthy, was, at four months old, admitted into the University Hospital at Berlin: he was then pale without being emaciated, and well made. The head, however, showed symptoms of chronic hydrocephalus; the face was small in comparison to the cranium; the hair was fine, light-colored, and very thin; the fontanels were widely open, and the sutures unclosed; the bones of the skull mobile, thin, and little advanced in their ossification. The greatest circumference of the head was eighteen inches and a quarter. Fluctuation could be perceived

every where, and especially at the anterior and posterior fontanels ; when pressure upon one of which was made, the other presented a hard translucent tumor. Not any of the medical means employed had the least salutary effect, and hence M. Graefe determined to try whether puncture would afford relief.

Having compressed the great fontanel so as to determine the fluid towards the small one, he introduced a moderately-sized cataract needle, at first vertically into the fontanel close to the side of the bone, and then, giving it an oblique direction, carried it onwards about a third of an inch. The liquid, which was viscid, dropped out but slowly ; the operator, therefore, withdrew the cataract needle, and introduced in the same way a fine trocar, and, as soon as the canula was opened, a transparent yellowish brown fluid gushed out in a free stream. In about half a minute the canula was closed, with the intention of subsequently re-opening it after the lapse of a few minutes, which was done several times, the skull being, during the whole period, gently compressed by the hands of an assistant applied on either side. When twelve drachms of the fluid were discharged, the infant's eyes became suddenly dull, the pupil contracted, the countenance pale and altered, and the action of the heart and the pulse more feeble. The canula then was immediately withdrawn, the wound closed, and the head compressed by the application of strips of adhesive plaster.

These symptoms did not disappear for several hours, notwithstanding the exhibition of stimulating medicines, which were prescribed ; and the child remained restless, slept little for the two following nights, cried much, and took the breast but seldom.

The same symptoms occurred after each subsequent operation, but it was found that the child became completely restored in about ten or fourteen days. At first only about twelve drachms were evacuated after each puncture, subsequently twenty were discharged. Between the earlier times of operating, the little patient took, morning and evening, the eighth of a grain of calomel, and the sixteenth of a grain of foxglove ; but this powder causing nausea, it was changed for two or three grains of calomel with magnesia, to be taken twice a day, two or three times a week, the head being bathed assiduously with squill, vinegar and water, just warm ; for after cold applications, which were tried several times, the infant was always uneasy, pale, and faint, insomuch that convulsions were feared. The head diminished in diameter two or even three lines after each operation, and by degrees the dimensions of the skull were reduced to a conformity with the face and the rest of the body. The fluctuation and the mobility of the cranial bones diminished, the sutures closed, and the general state of the patient was improved. The punctures were repeated eleven times at the following periods during the year 1829 : viz. the 8th, 15th, and 23d of January ; 19th of February ; 5th and 19th of March ; 19th and 27th of April ; 5th and 17th of May ; and 23d of June. The liquid evacuated became thicker and more coagulated towards the end. After the last operation, on the 23d June, no further fluctuation was perceived ; the little fontanel and all the sutures were closed, the great fontanel alone remaining slightly open. The

child grew, and even after the third operation it had already a better appearance, and after the ninth it began to articulate certain words, and also to walk : at ten months old it ran alone, and spoke as well as children of that age usually do. At the end of June, its head measured in the greatest circumference eighteen inches and three quarters.

On the 26th of November, 1830, the child, being then two years and a half old, was alive and well, and was presented to the Society of Medicine at Berlin.—*London Medical and Physical Journal*, from *Graefe and Walther's Journal des Chirurgie*, &c. Bd. 15.

GENERAL DROPSY.

Case of General Dropsy. By CHARLES C. HILDRETH, M. D. of Marietta, Ohio.

BETSY KING, a strong, robust, hard-laboring woman, about fifty years of age, began to complain of difficulty of breathing, and enlargement of her lower extremities, a few days after falling into a stream of water.

These symptoms had been gradually getting worse for about six weeks previous to my seeing her, occasionally yielding partially to evacuants, digitalis, &c. which had been prescribed for her by other physicians. When first called to see her, I found her sitting in an arm chair, which she had not been able to leave for some time previous ; breathing laborious, slightly asthmatic, and crepitant ; complains of great weight and oppression in the chest ; dry and troublesome cough, and deficient expectoration. To these symptoms were added an almost total suppression of urine, and slight mental alienation.

Her lower extremities were distended almost to bursting ; slight vesications had already appeared, indicating an effort of nature to diminish the distension. The skin felt cold to the touch, hard, and resisting to pressure.

So great to me appeared the cellular infiltration, that to satisfy my curiosity and avoid exaggeration, I took the trouble to measure it ; this I did by applying a string around the bellies of the gastrocnemii muscles ; which again applying to a scale I found to measure nearly twenty-six inches.

Her pulse was full, hard, and tense, evidently indicating venesection, to which operation she however refused to submit, urging her feelings of weakness and the severity of the preceding course of treatment.

Thinking perhaps her sanguiferous system might be sufficiently reduced by active hydrogogue cathartics, &c. to render the absorbent system sufficiently active, I commenced the treatment by the following prescription :—R. Sup. tart. potass. 3ii. ; Pulv. jalappæ, 3i. ; Nit. potass. 3i. ; Gambogiæ, gr. vi. Of this compound, one teaspoonful proved sufficient to procure five or six copious, fluid alvine dejections daily. To remove any visceral engorgement that might exist, and stimulate the kidneys to more active secretion, I gave her a pill morning and evening, of calomel and squills, ãã one grain. This prescription was continued until a slight pyalism was induced, which was perceptible about the fifth or sixth day. Seeing no diuretic effect for the first few days from the

nitre and squills, I ordered her a decoction of the common garden parsley, and some other diuretics from the woods, in old cider, to be taken pretty freely, which almost immediately occasioned a profuse secretion of urine, the patient discharging several quarts daily.

To promote expectoration and relieve her asthmatic breathing, I gave her Coxe's hive syrup, combined with a saturated tincture of lobelia inflata.

From this mixture, together with the cathartic and diuretic, she soon experienced great relief in respiration. To diminish the enormous distension of her lower extremities the more rapidly, I made with a spring lancet several punctures through the integuments and cellular membrane, extending them down from near the head of the tibia, on either side, towards its lower extremity.

These gave exit to large quantities of water; keeping up a constant dripping from the same, till the flannel swathe about her extremities, her shoes, and the carpet breadth, were quite wet with the effusion.

By repeating these punctures, and continuing the above prescriptions about a week, the dropsical affection was entirely removed; leaving her extremities shrunk to their natural size, and the skin slightly corrugated from increased tone. Her hydrothorax seemed also entirely removed; her cough and oppression having left her, and she being able to lie down and sleep without any difficulty of respiration. A slight ascites, which had been forming but a few days, but which had rapidly increased, was by the same means checked and dissipated, leaving her entirely free from all dropsical effusion.

A liberal exhibition of tonics completed the cure.

American Journal of Medical Sciences.

LAWS FOR THE INTERMENT OF THE DEAD.

THE philosopher, who studies the errors of man, will not find the display of his passions least absurd with respect to the disposal of the dead. The strongest-minded man may, after death, become an unresisting puppet in the hands of false sentiment, caprice, fashion, and superstition. If we deride other nations—if we smile at the Abyssinian, who, as soon as his relative is supposed to be dead, hermetically seals his mouth and nostrils, &c. &c.—we shall find also, upon inquiry, that many civilized nations are not less singular in other respects. The fulsome mummeries and inexplicable customs of some other European nations, though revolting to good sense, and Christian humility and belief, are, nevertheless, harmless pieces of vanity, compared with the pride, which, in this country, lays claim, at the expense of the living, to place and distinction, even for the tenant of the grave. For a striking instance of this pernicious absurdity, we need go no farther than the new church of M——. For the sum of thirty pounds, we may there purchase the privilege of poisoning the living, with the body of some departed relative. The body is laid on a trap-door, which (as an apology for the solemnity of 'Dust to dust') is strewn with a little sand. It then descends with its load to the bottom of the vault:—porters start from their hiding places

below, and as quickly disappear with their prize; and when the noise and bustle of their operations have subsided, you are invited into the depths of this fashionable 'Avernus,' to see the remains of your friend, duly exalted above the coffins of his predecessors. All that is indecorous at the moment, and prejudicial afterwards, may be avoided, by obeying, to the letter, the awful words of the service—(which convey more than one emphatic meaning)—'Earth to earth.'

Errors, such as these, fall immediately within the scope of our subject—but not all errors—not those which relate to prejudices against the examination of the dead, or to the dissections of the anatomist;—prejudices that impede the advance of scientific knowledge, and have given rise to crimes unprecedented in the annals of iniquity.

All the civilized nations of antiquity have condemned the custom of interment in cities. Wherever he travels, the antiquarian finds in the environs of the great ancient cities, tumuli, necropolis, funereal temples, vaults, excavations in caverns, masses of masonry of the most astounding magnitude, such as the pyramids—wonders of the old world, that appear to have survived the wreck of ages, to teach us an important lesson—a lesson, however, as yet unattended to in this country.

The mummies of Egypt, with their elaborate hieroglyphic legends—their preservation by gums, aromatics, and absorbent earths—offer us another example, how honor to the dead was made compatible with the safety of the living.* Sculpture has perpetuated the beautiful forms of urns; and classical history, the description of the funeral piles, whose cinders furnished their sacred contents. Among the Romans, the laws of the Twelve Tables bore '*Hominem mortuum in urbe ne sepelito, neve urito.*'

The neglect of such salubrious laws never fails to produce serious consequences. The Hindoo laws, of such high antiquity, prescribe the burning of bodies, before being thrown into the sacred river; which now being incompletely done, putrefaction is still generated, adding to the deadly effects of the marshes near the Ganges.

In further illustration of this subject, we may cite the reports of the French physicians, Messieurs Hamont and Parriset, who were expressly deputed to Egypt by the French government, to investigate the nature of the plague. It is their opinion, that the very superficial mode of interment that prevails there, materially contributes to it. At almost every village, they found, near the habitations of the Arabs, mounds crumbling away, and exhibiting the naked bones of those who had been buried in them.

In the whole of Lower Egypt, corpses are merely thrown on the surface of the earth. A hillock is raised over them, which is quickly demolished, or cracks in drying—while infectious vapors escape through the fissures, or flies are admitted to the bodies. The sting of these insects will subsequently produce pestilential tumors, of which many of the natives have been known to die.

* This custom among the Jews, in the time of the Redeemer, is thus alluded to in the Holy Scriptures: St. John, chap. xix. ver. 39, 40. 'And there came also Nicodemus, a mixture of myrrh and aloes, about an hundred pound weight. Then took they the body, and wound it in linen cloths, with the spices, as is the manner of the Jews to bury.'

Modern nations are no less decided, in their condemnation of the practice of interment within the precincts of cities. Their funereal monuments testify this, no less than those of the ancients. We need scarcely mention the Pere la Chaise, near Paris—the Campo Santo, near Naples—the Vale of Death, near Constantinople, &c. &c.

What a contrast do our English habits present ! Cemeteries, in the most populous places, elevated in consequence of their limited extent of space several feet above the pavements—and coffins, so close together, that the sexton is compelled to probe the ground, before he begins to excavate, to see whether the soil is sufficiently decomposed !

But the interment in churches is even more to be deprecated than all the circumstances we have stated. Vainly do the undertakers enclose the body in two coffins : supposing the lead hermetically sealed (as it should be), in the decomposition of the body, elements are evolved, and combine, of sufficient power sometimes to burst, at others to corrode, the coffin ; and the subtle effluvium escapes at a time when it has become most active, from long imprisonment.

* Non sempre i sassi sepolcrali ai tempi
Fean pavimento, ne agl'incenso avvolto
Dei cadaveri il lezzo, i supplicanti
Contamino.*

Churches are exposed, no less than other buildings we have mentioned, to the generation of insalubrious atmosphere, when crowds are assembled together in the hot season of the year. When to this source of mischief is superadded the subtle emanations from the dead, what may not be the amount of evil, although perhaps operating at a remote period ! Mr. St. John has remarked, ' Our dead are interred in our temples, and putrid exhalations float, like a desolating mist, through those aisles which should be sacred to praise alone. Men feel a sinking of the spirit on entering them ; but it is caused not by any accession of penitential feelings, but by inhaling a fetid, unwholesome atmosphere ; and through life they associate a certain cadaverous scent with every reminiscence of a church.'

We shall now give a few instances of the effects of effluvia from dead bodies.

In Dr. Johnson's work on Tropical Climates, we find, that a man dying in a ship then in China, and his companions taking his body to the banks of the river to be buried, at the first stroke the spade of one of the diggers entered a coffin, from which so strong an effluvium escaped as to strike down the two nearest men, who ultimately died.

We cannot afford space to relate all the accidents of a similar nature that occurred at the beginning of the French revolution ; when, on account of the insalubrity of the church and neighborhood of the Cemetery of the Innocents, the government determined to have the remains of the bodies removed. M. Thouret himself, who was director of these opera-

* Ugo Foscolo—*I Sepolcri*. These lines have been translated thus :

' Not in wise times the cemeteries dank
Were laid beneath the churches' floors, and gorged
Till the believers shudder'd at the stench,
Strangling the incense fumes, and kneel'd in terror.'

tions, narrowly escaped death from a putrid fever which he contracted in the performance of his duties. Those who only refer to works of general literature, will find an interesting account of the accidents that occurred on this occasion, in M. de Chateaubriand's '*Genie du Christianisme*.'

Three workmen died, who had entered the vault of a church at Montpelier, in 1749 ; a rapid flight saving a fourth, who had accompanied them.

The bodies in the burial ground of St. Eustache, in Paris, were moved in 1749 ; and of a number of children, who were proceeding to the church, to be questioned in their catechism, some fell down in a state of syncope, whilst others were subjected to other indispositions.

At Saulieu, in Burgundy, in 1773, and at Nantes, in 1774, great numbers of persons attending divine service were attacked with most serious diseases, in consequence of the bursting of coffins of persons interred in the church.

These, and numberless other instances that might be quoted, induced the French government to prohibit interments in the town ; and it was once in contemplation to burn dead bodies, according to the custom of the ancient Romans.—*Journal of Health*.

REJECTION OF THE CONTENTS OF THE STOMACH BY VOMITING.

Observations on some Circumstances which prevent the Rejection of the Contents of the Stomach by Vomiting. By JONATHAN OSBORNE, M. D., Fellow of the King and Queen's College of Physicians in Ireland, &c.

ALTHOUGH the mechanism of vomiting has been fully and successfully investigated by Magendie and other physiologists, and it has been established by their experiments that the action of the muscular fibres of the stomach is not the chief means, but that it is subservient to the pressure exercised by the diaphragm and abdominal muscles, yet there are several points connected with the function of vomiting which have never been sufficiently examined. One of these is the impossibility of vomiting which exists in some individuals, and also in some animals. Two modes in which this impossibility is produced, are the subject of the following observations. 1st. *Contraction of the œsophageal orifice* ; 2d. *Permanent opening of the pyloric orifice*.

1st. *Contraction of the œsophageal orifice.* This may take place in consequence of inflammation causing thickening of the mucous membrane, and also spasm of the circular muscular fibres at the orifice, as is observed in some cases of poisoning by arsenic, and other corrosive metallic poisons ; in which there are violent retchings and convulsive efforts at swallowing, but the contents of the stomach are not rejected, and nothing comes up but glairy mucus, derived from the pharynx and œsophagus. In other instances this kind of impossibility of vomiting arises solely from spasmodic action at the orifice, and is independent of any inflammatory action. I am indebted to my friend Dr. Perceval

Hunt, for the following statement of a case which appears to belong to this head.

'A Mr. S. has never vomited, so far as he remembers, under any circumstances, and appears from his earliest infancy to have been unable to discharge the contents of his stomach. Sea voyages have always caused great nausea, faintness, pain, and sense of twisting in the region of the stomach, succeeded by hiccup and most severe sneezing, then an intermission followed by another severe paroxysm, but never by retching or vomiting. Drinking wine to excess has always brought on a similar train of symptoms. He does not recollect ever to have taken an emetic, or anything intended to induce vomiting but once, when, during childhood, he was largely drenched with warm water, which, however, produced no other effect than great distension of the stomach. This peculiarity extends to several members of his family. One of them having, by the advice of a physician unacquainted with the circumstance, taken tartar emetic, suffered severely, and lay in a state of insensibility for two days. I may remark, that all those persons are of the habit usually denominated nervous, and subject to dyspepsia in a great degree from the slightest errors in diet.'

In the above case, the sense of twisting in the region of the stomach, with the nausea and faintness, while the system was under the influence of an emetic, denotes a strong effort to reject the contents of the stomach by vomiting, and the sneezing shows that the diaphragm took an active part in this effort, which appears to have been too violent, and to have actually prevented the vomiting from taking place.

It must be recollected that the *crura* of the diaphragm, between which the oesophagus passes, can, by their contraction, firmly close the tube, so as to prevent a passage; and that in ordinary vomiting the diaphragm is not in a state of active muscular contraction, but having contracted so as to fill the lungs with air, it remains passive, while it is supported by the air retained in the lungs by means of the active contraction of the muscles of the *glottis*.

The second instance which I am able to adduce is that of a medical gentleman of eminence in this city, who, when in a state of alarm from having been exposed to the contagion of fever, which he thought he had contracted, took eighteen grains of tartar emetic in repeated doses in the space of a few hours, without being able to produce vomiting, although on a former occasion he vomited after taking four grains. He has always attributed this circumstance to the eagerness with which he wished vomiting to take place on this particular occasion; and it is well known in hospitals that patients, when desired to pass their urine in the presence of the medical attendant, experience a kind of constriction at the neck of the bladder, which increases with their eagerness to overcome it, and prevents them for some time from complying, although at other times the passage takes place without any difficulty whatever.

I have no doubt that I might have adduced a number of similar instances in which vomiting was prevented by spasmodic closure of the oesophageal orifice; but I prefer to appeal to the recollection of practitioners, who must have met with instances, not only of this kind of impossibility of vomiting, but also of impossibility of eructation of the

gaseous contents of the stomach, from the same cause, although at the time the mode in which such occurrences took place did not attract their attention.

2dly. Permanent opening of the pyloric orifice. It is obvious that, if the *pylorus* remains open, the contents of the stomach will, when exposed to pressure, pass down through it, and not into the *æso-phagus*, and that thus vomiting will not take place. The following case I adduce as an instance of a disease in which vomiting always occurs, yet in which it could not occur in consequence of permanent enlargement and patency of the pyloric orifice, induced by scirrhus and ulceration.

Catherine Finegan, aged 45, married, was admitted to Sir Patrick Dun's hospital on the 18th of August, in a state of extreme emaciation, with the dusky jaundiced hue of the countenance which usually comes on towards the fatal termination of cancerous diseases. She complained of severe pain at the pit of the stomach, and right *hypochondrium*, shooting to the back and left shoulder. The left lobe of the liver was distinctly felt to be of a great size, indurated, painful on pressure, and with large eminences on its anterior surface. Pulse 100; could lie only on her right side; constant diarrhœa, with discharges of whitish shreds, having a peculiar cadaverous odor. A period of fourteen months had elapsed since the commencement of the disease. After her admission, the diarrhœa and pain were alleviated, but the former recurred; and on the 27th, slight rigors, with collapse of the countenance, came on, and she died on the evening of that day, *having never vomited, nor been affected with singultus during her residence in the hospital.*

On examination after death, the reason why vomiting was absent in this case, when in every instance of the same disease of the stomach it is always present, became quite manifest; for the *pylorus* was found presenting a firmly attached and permanently open orifice, of an inch and a half in diameter, formed by jagged ulcerations of a mass of scirrhus structure, surrounding the part which connected it firmly with the left lobe of the liver, into the substance of which the ulceration had penetrated to a considerable extent. The tunics of the stomach were gradually increased in thickness from the cardiac towards the pyloric extremity, and the liver presented large circular masses of scirrhus structure, which at the concave surface of the left lobe were involved in the mass surrounding the *pylorus*. A preparation of those parts has been deposited in the Museum of the College of Physicians.

In this instance it is obvious that, whether the action of vomiting were attempted to be performed by the diaphragm and abdominal muscles, or by the contractions of the stomach alone, in either case its contents must have been forced down the *pylorus*, and not into the *æso-phagus*.

If we endeavor to illustrate this subject by an appeal to personal experience, many instances will occur to our recollection of a state of suffering from nausea instantaneously relieved by a convulsive motion felt in the region of the stomach, as if it had rid itself of its contents, without, however, any vomiting having taken place. This is best explained by admitting an open state of the *pylorus* to have prevented the occurrence of vomiting. This open state may be temporary, and produced by temporary causes, and may depend especially on the small extent to which

the stomach is at the time distended. The facility of vomiting occasioned by taking large draughts of fluid, appears to be less owing to the excitement of its bulk than to the diminution of the orifice of the *pylorus* which takes place when the great curvature is turned outwards, as it is in the distended state. It is well known that vomiting rarely if ever occurs in the horse, and an examination of the stomach in that animal proves vomiting to be almost impossible; for the diameter of the *pylorus* is so large as to admit the passage of a hand of ordinary size, and is at least twice the diameter of the *œsophagus*: so that every circumstance must cause the contents of the stomach to be propelled through the former in preference to the latter orifice. This fact is the more worthy of remark, as Cuvier (*Leçons d'Anatomie Comparée*) has ascribed the impossibility of vomiting in the horse to the strength of some of the longitudinal muscular fibres at the *œsophageal* extremity. This opinion was formed before the experiments of Magendie and others had evinced the small share which the muscular fibres of the stomach take in the act of vomiting. The longitudinal fibres in the horse are quite inadequate for the purpose assigned, and are very little if at all more developed than they are in animals in which vomiting is most familiar.

The influence exercised by the *pylorus* on vomiting has been much overlooked. In diseases affecting that portion of the stomach next the pyloric orifice, vomiting is most likely to occur; whilst the appetite is most affected by affections of the cardiac extremity. This conclusion I have arrived at after comparing a great number of my cases and dissections. Notwithstanding, there may be several exceptions, as, for instance, when the affection is situated in the small curvature, in which case neither deficiency of appetite nor vomiting may occur. The vomiting being so uniform an attendant on disease in the neighborhood of the *pylorus*, appears to arise from spasmodic contraction of that orifice taking place, in consequence of its being near an excited part. And it must be held in recollection, that something must take place to cause the *pylorus* to contract, else there will be no vomiting. Magendie's well known experiment of substituting a bladder for the stomach, may cause this necessary action of the *pylorus* to be overlooked. In that experiment, vomiting was inevitable when the abdominal muscles contracted in conjunction with the diaphragm, because the contents of the bladder had only one exit, i. e. through the *œsophagus*. The existence of another orifice in the stomach renders the action more complex, and introduces a new condition to be fulfilled, which, if rendered impossible, vomiting also becomes impossible—which constitutes the second kind of impossibility mentioned at the commencement of these observations.—*Edinburgh Med. & Sur. Jour.*

CASE OF ADHERENT PLACENTA TRUSTED TO NATURE.

BY WILLIAM BROWN, M. D.

[Communicated for the Boston Medical and Surgical Journal.]

OCT. 10th, 1832, I was called to Mrs. ———, aged 24, in labor, as she said, with her first child. I arrived at 10, P. M.; pains were

then frequent and effective, the os uteri rapidly dilating, and the presentation natural. The head of the *fœtus* was soon at the inferior strait. In this situation it remained, notwithstanding the continuation of most powerful uterine contractions. In about two hours from the time that this arrest took place, the patient's strength began to fail rapidly; and there being not the smallest prospect of a delivery by the natural powers, the forceps were applied, and the child soon taken. It was dead—weighing twelve pounds; the head was exceedingly elongated, the disproportion between it and the pelvis being very great.

The uterus soon contracted upon its remaining contents, but no pain returned. I waited an hour and administered 20 grs. *secale cornutum*, and repeated the dose in half an hour. Slight pains followed, but effected no alteration in the situation of the placenta. I soon became convinced that the placenta was adherent; and consequently the hand was introduced, and this mass ascertained to be very firmly united to the fundus and anterior part of the uterus. I commenced separating it, but was soon forced to desist on account of the very profuse hemorrhage which it caused, although, at this time, the tonic contraction of the uterus was quite firm. Finding my patient in great danger from loss of blood, the hand was withdrawn and the hemorrhage arrested by frictions upon the abdomen, cold applications, &c.

During this operation not more than one sixteenth of the placenta was separated, yet the loss of blood was so great as to occasion alarming syncope. Being now confident that the patient would die in my hands, were the operation continued, I resolved to trust it to nature. The woman was accordingly put to bed, and the nurse directed to keep the abdomen covered with cloth frequently immersed in spirit and cold water.

Oct. 11th, 6 o'clock, P. M. Has slept some—had no pain; pulse 100, small and compressible. Bath to be continued and frequently changed; diet, gruel and rice water.

12th. Has rested little during the night; pulse 120, rather hard; tongue white, skin husky, abdomen tumid and tender.—To take *sul. mag.* 3j., repeated every second hour until full catharsis was induced—to continue bath; *pulv. ip. comp.* at night.

13th. Thirst great; pulse 120, more compressible; abdomen less tumid; some headache. *Sul. mag.* to be repeated. Solution *nit. potass.* every second hour.

14th. Umbilical cord separated last night; no pain; pulse 125, small and compressible; abdomen still tumid, a little tender; skin moist.—To take *sul. quinine*, 2 grs. every fourth hour—small quantity white wine.

15th. Has rested better; pulse 100, full and soft; skin moist; abdomen less tender.—To take *ol. ricini* 3ss.; to continue the quinine.

17th. Says she is much better; pulse 90; skin more natural; quinine every sixth hour; wine discontinued; 3ss. *ol. ricini*.

19th. Better; tongue natural; no tenderness on pressure about the abdomen.

20th. Called in haste to my patient; pains had come on, and the placenta, in a state of putrefaction, was protruding into the vagina. It was easily removed, and the pains soon abated. From this time the

woman rapidly recovered ; and in four weeks from the time of her confinement, was attending as usual to her domestic concerns.

I have lately been informed that this woman had a still-born child three years ago, and two years previous to her marriage, in which case also the placenta was retained and submitted to nature. She then resided in another State, and I have not yet learned the particulars of this case.

Poplin, N. H. Jan. 4th, 1833.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JANUARY 23, 1833.

MORTALITY IN BOSTON FOR THE YEAR 1832.

THE tidings from the grave which the new year brings with it, assume, the present year, an unusually serious aspect. The number of deaths during the last year is reported at 1761, which is more by 22 per cent than that of the preceding. The deaths for 1831 averaged 28 per week ; those for 1832, 34. A part of this increase is no doubt to be attributed to the augmentation of inhabitants, which, for the year, is probably not far from 3 per cent ; that is, if we suppose the ratio of increase from 1820 to 1830 to have continued unchanged. The increase of mortality, therefore, on the same number of inhabitants, is about 19 per cent. Neglecting, however, the consideration of the difference in population, for which it will not be difficult to make the allowance, we shall consider some of the most interesting points of view in which the general fact alluded to presents itself. Comparing, then, the same months in the two successive years, we find that for January there is an increase of 55 per cent ; in February, of 45 ; in March, of 31 ; in April, of 70 ; in May, of 101, the deaths being more than doubled this year ; in June, of 55 ; in July, of 22 ; in September, of 24 ; in October, of 32 ; in November, of 15 ; while for August there appears a diminution of 13, and in December of 39. This last month, indeed, presents the greatest mortality of any during the year 1831. The mortality of this month, during that year, was probably connected with the extreme and unremitted cold, occurring as it did at an unusually early period of the season.

As respects the diseases, in regard to which the difference between the two seasons has been most manifest, we observe—1. The remarkable increase in the prevalence of measles, from which 2 deaths are reported in 1831, and 70 in 1832. 2. The increase of mortality from scarlet fever, from which and throat distemper there were 84 deaths in 1831, and 199 in 1832. This disease seems to have been both very prevalent and peculiarly fatal during the last year. 3. The addition of malignant cholera

to the list, to which it appears that 78 have been victims during 1832. We notice few other marked instances of increased mortality from particular diseases. Typhus is charged with 45 deaths, which we should suppose rather under the actual mortality from that form of fever. Some forms of disease have been less fatal the last, than the preceding year; whooping cough has 22 deaths set against it, whereas in 1831 there were 26. This disease, either from a difference in the mode of treating it, or from some other cause, is decidedly less dreaded than formerly; and seems, so far as can be judged from the records of the last few years, to be growing milder.

In speaking of the general results deducible from this abstract, we have said nothing of the manner in which it has been drawn up. In some of the details there are glaring defects; not attributable, indeed, to the respectable individual under whose name the paper appears, but owing to the want of a proper responsibility in the reporting of diseases. We have, as usual, lung fever and inflammation of the lungs, given as distinct items, and no less than 126 unknown diseases. We understand, in fact, that in the great majority of cases the disease is learned from the friends, and that where they are not able or disposed to assign any, the superintendent is reduced to the alternative of making the matter out by the symptoms described, or of entering the case on his unknown list. The truth is, that a statement of the cause of death should be furnished by the physician whenever the deceased has had attendance, so that the unknown should be only those in which the death was sudden. The subject of rendering the bills of mortality more exact, has already attracted the attention of the medical profession; a new list of diseases has been prepared, and a plan devised for securing exact reports. To carry this into effect needs only an act of the city government, requiring returns to be made in conformity with the list. We hope that this subject will receive the attention which it deserves.

PURE WATER.

It is a subject of congratulation with the inhabitants of this city, that the mayor has recalled to the attention of the Council the importance of furnishing a supply of soft water. The hope that some effective measures to this end will be adopted, is encouraged by the fact that a committee has been appointed, charged with this highly important subject. For many years a supply of soft water has been a great desideratum, and it is worthy of remark that the causes that have rendered it so are constantly increasing. So large a portion of the earth within the limits of the city has become now charged with impurities, that the water collected in our wells cannot but be, in some measure, impregnated with them; and the experience of every family sanctions, in a greater or less degree, this

conclusion. When, therefore, it is recollected in how many ways we receive water into the system—that we not only, in these days more particularly, make it our chief drink, but swallow it in our tea and coffee—and that all our bread, and our boiled meats and vegetables, are thoroughly imbued with it, we cannot but be alive to the very great importance of having it in abundance and in its purest state. Independent of the immediate comfort to be derived from such a supply, we would hazard the opinion, and let it not be lightly esteemed, that nothing in the power of the City Council would so essentially promote the *health* and the *temperate habits* of their constituents, as to bring to their several habitations a plentiful supply of this most delicious of all beverages. The expense attending the most economical mode of accomplishing this object, would doubtless be great : but, as an investment, the amount would unquestionably be productive of more than usual interest ; and even if it were not, the expenditure would be fully justified by the public good resulting from it—by the measure of health it would bring to the citizens, and the powerful aid it would afford to the cause of temperance.

Instruction of the Blind.—The gratifying results which have followed the introduction of the language of signs from Europe, for the instruction of the Deaf and Dumb, have induced a portion of our philanthropists to direct their attention to another class of the unfortunate members of the human family—THE BLIND. About two years ago, an Association for the instruction of the blind was formed in Boston : and in June, 1831, Dr. Samuel G. Howe was sent to Europe, to acquire the requisite information for the establishment of a school for their instruction. That gentleman visited several of the schools in the European capitals, and was on his way to that in Vienna, when he was arrested by the Prussian Government for the aid and comfort which he was deputed to administer to the Polish exiles on his route. He returned to his own country during the past summer, bringing with him an intelligent pupil of one of the European schools. The institution in Boston has since been opened, under the most flattering auspices, and the results, so far, have more than fulfilled the expectation of its founders. Simultaneously, as it were, with the opening of the Boston Institution, a similar undertaking was commenced in this city, the immediate direction of which has been entrusted to Dr. John D. Russ, a gentleman well qualified for the station, who is a particular friend of Dr. Howe, with whom he served in the recent Grecian struggle for freedom.

On Thursday evening last, a meeting was held at the City Hotel, to witness an exhibition of the progress which had been made by the pupils of this last-mentioned institution, in the cultivation of their minds, and in the mechanic arts. An interesting and able address was read to the meeting by Dr. Akerly, in which he expatiated upon the blessing of sight, the calamity of its deprivation, and the extent to which the blind may be rendered happy and useful by instruction. According to the late census, it appears that the number of blind persons in this State is 724, of whom 82 are of our colored population. This enumeration probably falls short of the fact ; for the census mentions only 46 in this city, whereas it is ascertained that there are more than 50 in the almshouse alone. According

to the last census of the United States, the number of the blind in New England, New York and New Jersey, is 1365. To alleviate the misfortune under which so many individuals labor, is an effort worthy of the pure and enlarged benevolence of our fellow citizens. It is well known that a great proportion of these unfortunates in this city lost their sight by ophthalmia in the almshouse. The original calamity of being poor and friendless placed them there, and by the occurrence of the disease alluded to, they are further deprived of the most necessary of all the senses for gaining a livelihood. Even with the best instruction and kindest sympathies, their situation is deplorable—without them it is wretched indeed. The exhibition to which we refer, evinced that great mental improvement and mechanical skill may be attained by able teaching, even in those branches where the possession of sight would seem to be indispensable. We may venture to say in conclusion, that no person who attended the meeting came away without sensible gratification, or without feeling an anxious desire that this valuable institution may be more generally known and appreciated by a liberal and beneficent community.

N. Y. Com. Ad.

New Naval Hospital.—In addition to the 'Marine Hospital,' which is located on one side of the Winnisimmet property, in Chelsea, a new building, to be called the 'Naval Hospital,' is about to be erected, on the other side of the ferry lands, in that town. The site cost the Government \$20,000 and upwards, and is well known as one of the most commanding as well as salubrious situations in New England. The grounds are to be laid out in a very regular but tasty manner. The whole structure and appurtenances are, as we learn, to be constructed upon the most liberal and extensive scale.—*Boston Eve. Transcript.*

The Cholera in Maine.—The report that there has been a number of cases of malignant cholera at Hollis, in York county, appears to be confirmed. Dr. Clark, of this city, who has visited several of the patients, says the symptoms agree perfectly with those he witnessed at New York, though he considers the disease of a milder form, and says it yields readily to medicine. Out of eleven cases which have occurred there this month, six have proved fatal. The remaining patients were recovering.

Portland Courier.

Smallpox.—The Norfolk Advertiser states that the young man in Dedham, who has been sick some time with smallpox, died on Friday last in the afternoon, and was interred the following night. His name was James Cooke, of Frisburg, Vt. His age was twenty-two years. No other case of smallpox had occurred.

Whole number of deaths in Boston for the week ending Jan. 18, 39. Males, 21—Females, 18. Stillborn, 1.

Of croup, 4—dropsy on the brain, 2—accidental, 1—intemperance, 2—suicide, 1—hooping cough, 1—lung fever, 6—consumption, 7—infantile, 3—inflammation of the lungs, 3—disease of the heart, 1—child-bed, 2—throat distemper, 2—decline, 1—debility, 1—asthma, 1—burn, 1.

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